

5.0 ENVIRONMENTAL REQUIREMENTS

The Contractor shall comply with all requirements of all applicable environmental laws, Environmental Approvals and Governmental Approvals issued thereunder, whether obtained by CDOT or the Contractor. The Contractor shall prepare an Environmental Compliance Work Plan for the Project, specifically identifying all of the environmental compliance requirements for the Project and the Contractor's approach for complying with those requirements. The Environmental Compliance Work Plan shall be submitted to CDOT for Acceptance within 60 days of NTP1. The Contractor shall employ and utilize on the Project an Environmental Compliance Manager. It is acceptable for the Environmental Compliance Manager to serve as the erosion control supervisor. The Environmental Compliance Manager shall lead a field review with CDOT environmental staff to discuss environmental issues every two weeks during active construction periods, and shall have the authority to stop construction if work activities jeopardize environmental laws, policy, or human health and safety. The Environmental Compliance Work Plan shall be updated every month, and document any pertinent discussions that occur during the environmental field reviews. The Work Plan shall be submitted to CDOT for acceptance every month.

5.1 Environmental Resources Requirements

5.1.1 Air Quality

The Contractor shall obtain a construction permit and develop a control plan for particulate emissions in accordance with Colorado Air Quality Control Commission regulations.

The Contractor shall have water systems for street-cleaning equipment capable of diminishing dust during sweeping operations.

5.1.2 Noise

CDOT performed a noise analysis as part of the Environmental Assessment (March 2005) and Reevaluation (December 2007). The noise analysis was conducted under the latest geometry assumptions included in the EA-level plans. The following conclusions were reached:

- No noise mitigation is warranted within the Phase 1 or Phase 3 Project limits.
- No noise mitigation is warranted for the interim Phase 1 Project condition.
- A 340-foot long and 6-foot high noise barrier along the north side of Broomfield Mobile Home Park is reasonable and feasible. This barrier will be constructed with the Phase 2 project

Vertical-alignment changes of more than 5 feet, or horizontal-alignment changes of more than 30 feet from what is shown in the FIR plans in the Reference Documents will require a new noise analysis. The Contractor shall be responsible for the new noise analyses and payment for any increase in the requirement for reasonable and feasible noise barriers that result from the new noise analysis. Noise analysis and mitigation shall be in conformance with CDOT Noise Analysis and Abatement Guidelines. The Contractor shall use the Traffic Noise Model v2.5, currently approved by FHWA. Noise analyses, final geometry and architectural details of noise barriers shall be submitted to CDOT for Acceptance prior to issuance of Released for

Construction Documents. The Contractor shall be required to hold at least one public meeting to discuss noise barrier options if noise barriers are recommended as a result of new analyses.

5.1.2.1 Construction Noise

CDOT will assist the Contractor in securing any necessary construction noise permits from local agencies. These permits shall be acquired prior to construction. The Contractor will be required to prepare and submit to CDOT for Acceptance a noise mitigation plan for Work between the hours of 10 PM and 7 AM.

To limit construction noise and traffic impacts to residential areas, no construction access to the Site will be allowed from Allison Street north of the 120th Avenue Connection alignment, or from 119th Avenue.

5.1.3 Archaeology

If any archeological resources are discovered within the Project area during construction, the Contractor shall immediately cease related construction Activities, fence off the area, and contact the CDOT Project Director.

5.1.4 Paleontology

When the Project design plans are finalized, the CDOT Project Director will examine them in order to estimate potential impact and the scope of paleontological monitoring Work during construction, if any, which is required.

If any subsurface bones or other potential fossils are found anywhere within the Project limits during construction, the Contractor shall immediately contact the CDOT Project Director, who will assess their significance and make further recommendations. The Contractor shall fence off all discovered paleontological sites, subject to the Approval of CDOT.

5.1.5 Parks and Recreation

The Work is not anticipated to impact any public parks or recreation facilities. The Contractor shall request CDOT Approval before any type of construction Activity takes place within public park property.

5.1.6 Vegetation

Minimize tree removal and disturbance to native plant communities, especially wetlands and riparian plant communities. Any trees within the Project area not designated for removal during construction that are damaged by construction Activities shall be replaced by the Contractor on a 1:1 basis at the Contractor's expense. Use native species in revegetation sites. Trees shall be removed outside of nesting season dates of April 1 to August 31 per the Migratory Bird Treaty Act (MBTA). See Book 2 Section 17 for planting and soil-preparation requirements. Requirements for submitting an Integrated Noxious Weed Management Plan are included in Book 2 Section 17.

5.2 Environmental Permits

REQUIRED permits TO BE OBTAINED BY THE CONTRACTOR:

The Contractor shall be responsible for obtaining all governmental and agency permits required for the Work, not otherwise obtained by CDOT, including but not limited to the following environmental permits:

Permits/Approvals	Permitting Agency
Construction Dewatering Permit	CDPHE Water Quality Control Division
Demolition Permits	CDPHE & Local Agency (City and County of Broomfield)
Construction Noise Permit	City and County of Broomfield
CDPS Stormwater Construction Permit	CDPHE Water Quality Control Division
Black Tailed Prairie Dog Removal Permit	City and County of Broomfield Colorado Division of Wildlife
Dust Suppression	CDPHE Air Pollution Control Division
Nest Take Permit	USFWS
Construction Permits	City and County of Broomfield
Other Local Permits (railroad, building, utility, survey)	Local agencies or railroad company

5.2.1 Colorado Discharge Permit System – Stormwater Construction Permit (CDPS-SCP)

The Contractor shall be responsible for all stormwater permit requirements until the permit is closed. This includes the maintenance of all BMPs and seeded / landscaped areas until final stabilization has been achieved (See Book 2, Section 12), all temporary BMPs have been removed, and there is no potential for erosion. See Book 2 Section 12 for a complete list of stormwater-sediment and erosion-control requirements. The Contractor shall review and incorporate the latest requirements from CDOT for erosion and sediment control. Note that updated CDOT requirements are planned to be released in January 2009.

5.2.2 404 Permit/Wetlands

The construction is not expected to affect any US Army Corps of Engineers (COE) jurisdictional wetlands and no wetland permits are expected to be required. The EA re-evaluation identified .335 acres of disturbance to non-jurisdictional wetlands. During Design, the Contractor shall determine the final area of impact and prepare a Finding Amendment Letter to update the

Wetland Finding. Based on the final impact, CDOT will acquire wetland mitigation credits via off-site banking at a 1:1 mitigation ratio. Credits must be obtained prior to any impacts to wetlands.

Prior to beginning construction, the Contractor shall fence off wetlands not to be affected during construction. Wetland locations and anticipated wetland impacts are shown on the Reference Documents. All impacts to wetlands by the Contractor beyond the identified disturbance areas, including trespassing, parking, or storing equipment within fenced wetland areas is not allowed, and violations will require appropriate mitigation at the Contractor's expense.

5.2.3 Migratory Birds

The Contractor shall be responsible for giving at least 48 hours advance notice to CDOT to provide a qualified wildlife biologist to complete a migratory bird nest survey within the Project Study Area (as shown in the March 2005 EA) prior to any construction between April 1 to August 31. Swallow nests may exist on the Project and are protected by the Migratory Bird Treaty Act. Swallow nesting activities generally occur from April to August. The Contractor will not be permitted to perform Work on any structure on which swallows have established occupied nests. Protecting structures from nesting using netting or other methods and materials is acceptable. Any structure that will be impacted by construction and which has contained swallow nests shall be checked daily by the Contractor, and all nests shall be removed immediately.

5.2.4 Spill Prevention Control and Countermeasure Plan (SPCC)

The Contractor shall also prepare a Spill Prevention Control and Countermeasures Plan (SPCC plan). The Contractor shall perform inspections per the CDPS-SCP to assure the construction BMPs are adequate for the Site conditions of the Project and are in good working condition. The Contractor shall prevent the discharge of any sediment or pollutants into any storm drains or receiving waters, during the life of the CDPS-SCP. All documents pertaining to the CDPS-SCP shall be kept in the Contractor's SWMP notebook to maintain compliance with the SCP. The SWMP notebook shall be kept in the Project trailer during construction and kept with the SWMP Administrator until the permit is closed/inactivated. Upon permit inactivation, the SWMP notebook shall be turned over to CDOT and become the property of CDOT Project files.

5.2.5 Construction Dewatering Permit

The Contractor shall obtain a Construction Dewatering Permit from the CDPHE for any dewatering of groundwater during construction in accordance with Water Quality Control Division (WQCD) requirements. The Contractor shall apply for this permit at least 30 Days prior to the start of discharge.

The water quality standard that governs this discharge is that of the receiving water as evaluated by the WQCD. The Contractor shall provide all information needed to assist the WQCD in their evaluation and setting of a water quality standard for this permit, which may include monitoring of the discharged water.

The Contractor shall monitor roadways for any settlement caused by dewatering. The Contractor shall do a preliminary survey of any private property or buildings that may be affected by dewatering to establish existing conditions. The Contractor shall repair any damage to roadways, or private property or buildings caused by his dewatering operations.

5.2.6 Miscellaneous

The Colorado Department of Public Health and Environment (CDPHE) shall be contacted by the Contractor if groundwater monitoring wells will be disturbed.

Contractor shall obtain applicable permits from City and County of Broomfield. Permit fees will be waived except for the Class C permit fee.

5.3 Senate Bill 40/Wildlife

Riparian areas and streamside habitat are not expected to be impacted by construction Activities. Senate Bill 40 Wildlife Certification (SB 40) is required for construction Activities that impact riparian areas. The Contractor shall be responsible for the Certification, and any mitigation requirements, if impacts occur to existing riparian areas.

5.3.1 Black Tailed Prairie Dogs

There are existing Black-tailed prairie dog (BTPD) colonies within the Project limits that could potentially be impacted by construction Activities. Both the City of Broomfield and CDOT have policies for addressing BTPD impacts and mitigation, and the Colorado Division of Wildlife (CDOW) also regulates certain activities associated with impacts to BTPD. The Contractor shall review these policies and be aware of the regulations, guidelines and requirements associated with them.

Prior to conducting any Activities that could potentially impact BTPD, the Contractor shall submit a plan of action that outlines what the impacts are expected to be and how the policies mentioned above will be followed and complied with. If prairie dogs are relocated or removed during the burrowing owl nesting season (April 1 through July 31) the affected habitat will be surveyed by a qualified biologist for the presence of burrowing owls. This plan will be reviewed and approved by the City of Broomfield, CDOT, possibly the CDOW depending on the level of impact, and any other agencies as necessary. Approval from these agencies will be required before impacts to BTPD can occur.

5.4 Recognized Hazardous Materials

Recognized Hazardous Materials (RHMs) are defined as the presence or suspected presence of Hazardous Substances which may require management and/or disposal. Hazardous Substances may exist on the surface, subsurface, in groundwater, or on structures to be demolished, and maybe mixed with soil, water, and/or other waste materials.

RHMs have been identified at a number of locations within the overall Project area. The Contractor's attention is directed to the EA, FONSI, and EA Update for information related to the RHMs.

The Contractor shall comply with all applicable requirements, including but not limited to Section 250 of the Standard Specifications, Environmental, Health and Safety Management, and herein, for the management and disposal of RHMs.

The Contractor shall develop a Materials Management Plan (MMP) and a Health and Safety Plan (HASP) to be submitted for Approval by CDOT within 60 days after NTP1. The Contractor shall comply with all provisions set forth within the Approved MMP and HASP.

5.5 Deliverables

At a minimum, the Contractor shall submit the following to CDOT for review, Approval and/or Acceptance:

Deliverable	Acceptance or Approval	Schedule
Environmental Compliance Work Plan	Acceptance	Within 60 days of NTP1
Environmental Compliance Work Plan Updates	Acceptance	Every month
Environmental Permits	Acceptance	Per the requirements of the permit and the Contract Documents.
Migratory Bird Nest Survey	Acceptance	Prior to impacting existing structures that may contain active bird nests.
Materials Management Plan (MMP)	Approval	Within 60 days of NTP1
Health and Safety Management Plan (HASP)	Approval	Within 60 days of NTP1
Sampling Analysis Plan (SAP)	Acceptance	Within 60 days of NTP1
Identification of Subcontractors or Contractor to Perform Remediation Work	Review	Prior to Subcontractors or Contractors Commencing Remediation Work
Remediation Scope of Work	Approval	Prior to commencing Remediation Work
Monthly RHM Reports	Review	Monthly